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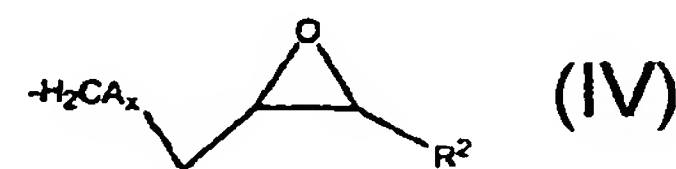
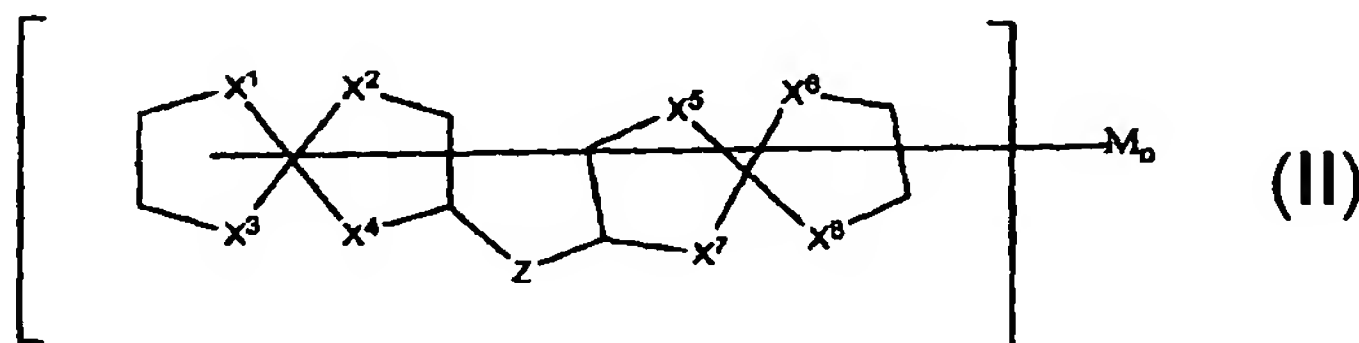
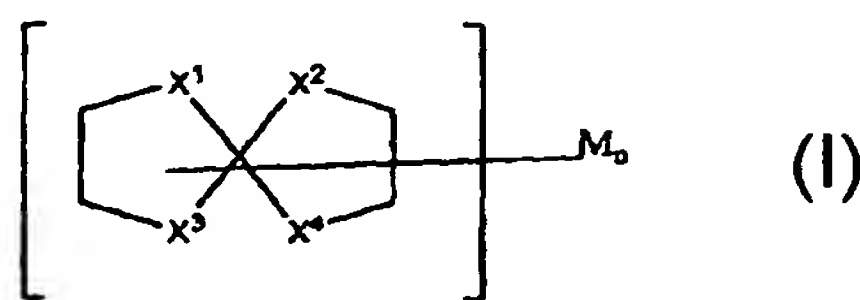
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Declaration under Rule 4.17:

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[Continued on next page]

(54) Title: SPIROTETRATHIOCARBAMATES AND SPIROOXOTHIOCARBAMATES



(57) Abstract: Spirotetrathiocarbamates (STOCs) or oxa substituted compounds (SOTOCs) of Formula (I): (Formula (I)) or bis-STOC or bisSOTOC compounds of Formula (II): (Formula (II)) wherein X<sup>1</sup>, X<sup>2</sup>, X<sup>3</sup>, X<sup>4</sup>, X<sup>5</sup>, X<sup>6</sup>, X<sup>7</sup>, and X<sup>8</sup>, are independently O or S; and preferably at least two and up to all four of X<sup>1</sup>, X<sup>2</sup>, X<sup>3</sup> and X<sup>4</sup>, and at least two and up to all four of X<sup>5</sup>, X<sup>6</sup>, X<sup>7</sup>, and X<sup>8</sup> are sulfur; Z is -C<sub>m</sub>R<sup>2</sup><sub>2m</sub> wherein m = 1 to 4; -C(R<sup>2</sup>)<sub>2</sub>SC(R<sup>2</sup>)<sub>2</sub>-, C(R<sup>2</sup>)<sub>2</sub>SSC(R<sup>2</sup>)<sub>2</sub>-, or -C(R<sup>2</sup>)<sub>2</sub>OC(R<sup>2</sup>)<sub>2</sub>-, n is from 0 to 4; M is selected from CH<sub>2</sub>Cl, CH<sub>2</sub>SC(O)R<sup>1</sup>, CH<sub>2</sub>SC(S)R<sup>1</sup>, CH<sub>2</sub>S(CH<sub>2</sub>CH<sub>2</sub>S)<sub>q</sub>H wherein q is 0, 1 or 2; -CR<sup>2</sup>=CH<sub>2</sub>, -CH<sub>2</sub>OC(O)CR<sup>2</sup>=CH<sub>2</sub>, CH<sub>2</sub>N=C=S, CH<sub>2</sub>N=C=O, CH<sub>2</sub>NR<sup>2</sup>H, CH<sub>2</sub>OH, CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>CR<sup>2</sup>=CH<sub>2</sub>, phenyl, C(R<sup>2</sup>) phenyl, furan, thiophene, halogen, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, C<sub>3</sub>-C<sub>6</sub> heterocyclics, thiol, H, (III) or (IV) wherein A is S, O or phenyl; x is 0 or 1; R<sup>1</sup> is C<sub>1</sub>-C<sub>22</sub> alkyl; and R<sup>2</sup> is H or C<sub>1</sub>-C<sub>22</sub> alkyl have excellent optical properties. Methods for preparing these compositions and optical lenses prepared from the compounds are also provided.



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**B. FIELDS SEARCHED**

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Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, CHEM ABS Data, WPI Data, BEILSTEIN Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	BARBERO, MARGHERITA ET AL: "Convenient procedure for converting 1,3-dithiolane-2-thiones into 1,3-dithiolan-2-ones" JOURNAL OF THE CHEMICAL SOCIETY, PERKIN TRANSACTIONS 1: ORGANIC AND BIO-ORGANIC CHEMISTRY, (3), 289-94 CODEN: JCPRB4; ISSN: 0300-922X, 1996, XP001194751 examples 3a-3f	1



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Patent family members are listed in annex.

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- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Information on patent family members

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